

REMARKS

Applicants will address each of the Examiner's rejections in the order in which they appear in the Office Action.

Claim Rejections - 35 USC §112

In the Office Action, the Examiner rejects Claims 53-61 under 35 USC §112, first paragraph, as failing to comply with the written description requirement. This rejection is respectfully traversed.

More specifically, the Examiner contends that there is no support for discharging a light-emitting material, other than organic light-emitting material, through a contact element. Applicants respectfully disagree.

Support for discharging a light-emitting material, other than organic light-emitting material, through a contact element may be found at, for example, page 30, lines 3-4 in the specification of the present application. This section clearly states that "A known material can be used for the EL layer 350. Preferably, that is an organic material in consideration of driving voltage." Hence, it would have been clear to one skilled in the art that while an organic material is preferred, other known materials than an organic material can be used for the EL layer.

Therefore, the written description requirement has been complied with, and it is respectfully requested that this rejection be withdrawn.

Claim Rejections - 35 USC §103

Claims 6-7, 19, 31, 48, 50-51, 53-55, 57-58, 60-67, 69-74 and 76-77

In the Office Action, the Examiner rejects Claims 6-7, 19, 31, 48, 50-51, 53-55, 60-67, 69-74 and 76-77 under 35 USC §103(a) as being unpatentable over Miyashita et al. (WO 98/24271 - English equivalent, US Patent Publication No. 2002/0041926) in view of Iguchi (WO 98/27579 - English equivalent, US Patent Publication No. 2002/0009536) and Kasubuchi et al. (US 3,878,517). This rejection is respectfully traversed.

While Applicants traverse this rejection for at least the reasons explained in depth in the last amendment, in order to advance the prosecution of this application, Applicants are amending independent Claim 6 to recite:

“discharging a liquid comprising an organic light-emitting material to a pixel column over a substrate through a contact element from a nozzle by contacting the contact element to a bank so that the contact element and the pixel column are connected through the liquid comprising said organic light-emitting material, wherein the contact element is provided at a tip of the nozzle.”

Similar amendments have been made to independent Claims 53, 64 and 71. It is respectfully submitted that the amended claims clearly distinguish over the cited references.

In contrast to the claimed invention, Miyashita merely discloses discharging a liquid through a head 110 from an ink-jet device 109. See for example para. [0050] and Fig. 1 in Miyashita. Miyashita does not disclose or suggest the feature of discharging a liquid through a contact element provided at a tip of a nozzle, by contacting the contact element to a bank, as in the

claimed invention.

Iguchi merely discloses discharging a liquid through an outlet hole 44 provided at a tip of a paste application 20 (nozzle) and discloses a separate height sensor 40 for detecting the position of the top ends of the barrier ribs (bank) of the substrate in the vertical direction. See for example, para. [0248]; Figs. 3 and 4 in Iguchi. The outlet hole 44 and the height sensor 40 of Iguchi are different components from each other and are provided apart from each other. Further, according to Fig. 2 in Iguchi, there is a distance C between the outlet hole (provided at a rib of the paste applicator) and the top end of barrier rib (bank). The Examiner argues that the height sensor 40 is a contact element indirectly connected to the nozzle (outlet hole) 44. However, the amended claims require that the contact element be at the tip of the nozzle. Height sensor 40 is clearly not at the tip of the outlet hole 44. Therefore, Iguchi does not disclose or suggest the claimed feature of discharging a liquid through a contact element provided at a tip of a nozzle by contacting the contact element to a bank.

In addition, Kasubuchi merely discloses discharging a liquid through a printing head 1 from a nozzle 2. See for example, col. 2, lines 63-68; Fig. 1 in Kasubuchi. Further, Kasubuchi is directed to an ink-jet system for printing and does not disclose or suggest a bank. Therefore, Kasubuchi does not disclose or suggest the claimed feature of discharging a liquid through a contact element provided at a tip of a nozzle by contacting the contact element to a bank.

Therefore, even if it were proper to combine these three references (which Applicants do not admit is proper), the combination still fails to disclose or suggest the claimed invention.

Moreover, on pages 4 and 5 of the Office Action, the Examiner states that Miyashita teaches that a continuous stream connecting the nozzle and the pixel column may be used to

deposit such stripes and that Kasubuchi teaches that ink-jet printers are capable of providing continuous streams (col. 7, lines 6-24). However, Iguchi merely discloses discharging a liquid as some drops form, not discharging a liquid as a continuous form. Miyashita also merely discloses discharging a liquid as some drops form, not a liquid as a continuous form (see, for example, drops from head 110 of Fig. 1).

Accordingly, independent Claims 6, 53, 64 and 71 are not disclosed or suggested by the cited references, and Claims 6, 53, 64 and 71 and those claims dependent thereon are patentable over these references. Accordingly, it is respectfully requested that this rejection be withdrawn.

Claims 26 and 56

The Examiner also rejects Claims 26 and 56 under 35 USC §103(a) over Miyashita in view of Iguchi, and Kasubuchi and further in view of Kurosawa et al. (US 6,057,647). This rejection is also respectfully traversed.

Claims 26 and 56 are dependent claims. Therefore, they are patentable over the cited references for at least the reasons discussed above for independent claims. Accordingly, it is respectfully requested that this rejection be withdrawn.

Claims 49, 59, 68 and 75

The Examiner also rejects Claims 49, 59, 68 and 75 under 35 USC §103(a) as being unpatentable over Miyashita in view of Iguchi and Kasubuchi and further in view of Horike (US 4,281,332). This rejection is also respectfully traversed.

Claims 49, 59, 68 and 75 are dependent claims. Therefore, they are patentable over the

cited references for at least the reasons discussed above for independent claims. Accordingly, it is respectfully requested that this rejection be withdrawn.

Conclusion

It is respectfully submitted that the present application is in an allowable condition and should be allowed.

Please charge our deposit account 50/1039 for any further fee for this amendment.

Favorable reconsideration is earnestly solicited.

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Respectfully submitted,

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